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April 1, 2014

Docket Control Arizona Corporation Commission 1200 W. Washington Phoenix, AZ 85007

ORIGINAL

RE:

Arizona Public Service Company

2013 Renewable Energy Standard Annual Compliance Report

Docket Nos. E-01345A-10-0394, E-01345A-12-0290, E-01933A-12-0296 and

E-04204A-12-0297

Pursuant to Arizona Administrative Code R14-2-1812(A), Arizona Public Service Company ("APS" or "Company") is required to file an annual report detailing its compliance with the Renewable Energy Standard ("RES") rules:

Beginning April 1, 2007, and every April 1st thereafter, each Affected Utility shall file with Docket Control a report that describes its compliance with the requirements of these rules for the previous calendar year. The Affected Utility shall also transmit to the Director of the Utilities Division an electronic copy of this report that is suitable for posting on the Commission's website.

Pursuant to Commission Decision No. 72022, APS is also required to submit a summary of the RES Compliance Report and a Power Point presentation.

Attached please find the Company's 2013 RES Compliance Report, Report Summary, and Power Point presentation. Competitively confidential information contained in the Report will be submitted to Staff under separate cover. An electronic copy of the RES Compliance Report suitable for posting to the Commission website is also being provided to Commission Staff's Utilities Division Director. Excel work papers will be submitted to Staff under separate cover.

If you have any questions regarding this information, please contact Gregory Bernosky at (602)250-4849.

Sincerely

Lisa Malagon

LM/cd Attachment

cc: Steve Olea (w/CD containing Report)

Terri Ford Ray Williamson Brian Bozzo Arizona Corporation Commission DOCKETED

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### 2013 RENEWABLE ENERGY STANDARD COMPLIANCE REPORT

April 1, 2014

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### I. 2013 Renewable Energy Standard (RES) Results

For calendar year 2013, the Arizona Corporation Commission (Commission) established an annual RES requirement of 4 percent of the utility's 2013 retail kilowatt-hour (kWh) sales to come from renewable resources, with 30 percent of the total requirement to be fulfilled with energy produced from Distributed Energy (DE) sources. This separate DE carve-out provision requires half of the total DE requirement to come from residential sources and half from non-residential sources. A summary of APS's 2013 compliance is shown in Table 1a. Under current rules, compliance to the RES is measured using Renewable Energy Credits. For the purposes of RES compliance tracking, a REC is defined as the environmental attributes associated with a kWh derived from eligible renewable resources or the kWh equivalent of conventional resources displaced by distributed resources¹; however, throughout the Compliance Report APS discloses its production in megawatt-hours (MWh).

Table 1a below demonstrates APS compliance with its 2013 requirements and Table 1b (see page 3) reports on total RES resources as of the end of 2013. In 2013, the Company's total RES resources were 1,913,285 MWh, which is **6.8 percent** of APS's total 2013 retail sales. Total DE energy production for the year reached 696,375 MWh. Total Residential performance was **165 percent** of the requirement for 2013 and Non-Residential performance was **248 percent** of the requirement.

**Table 1a - Compliance Summary** 

Category	Metric	%	Compliance Measure (MWh)	RES Resources (MWh or Equivalent)	
Retail Sales Prior year carrying balance <sup>1</sup> 2013 Total RES Resources [Fro	Actual MWh Sales for 2013 m (E) in Table 1b]		28,127,133	954,778 1,913,285	(f (6
2013 Total RES Requirement DE Requirement DE Sub-Requirements:	% of Retail Sales % of RES Requirement	4.0% 30%	1,125,085 337,526		
Residential DE Non-Residential DE Non-DE Target <sup>2</sup>	% of DE Requirement % of DE Requirement	50% 50%	168,763 168,763	278,161 418,214 428,711	(0 ()- ()
Resources Used for 2013 Comp	liance (G+B+I)			1,125,085	
End 2013 carrying balance (	F4E-J)			1,742,977	0

Notes to Table 1a:

<sup>&</sup>lt;sup>1</sup>The RES-eligible resource carrying balance is accounted for using First-In-First-Out (FIFO) methodology, wherein the entire carrying balance is applied to the RES requirement and the year-end carrying balance consists of current year remaining resources.

<sup>&</sup>lt;sup>2</sup> Although there is no defined requirement for Non-DE Resources, the energy reported in this section reflects Non-DE resources applied towards the overall RES requirement NOTE: Columns, rows, and calculations may not total due to rounding.

<sup>&</sup>lt;sup>1</sup> A.A.C. R14-2-1801(N).

Additionally, the Company's 2009 Rate Case Settlement Agreement (2009 Settlement)<sup>2</sup> adopted provisions that exceed the requirements of the RES. The 2009 Settlement required APS to, among other provisions, acquire energy resources with annual generation or savings of 1,700,000 MWh to be in service by December 31, 2015. It further states that the new resources are to be in addition to existing resources or commitments as of the end of 2008.

### **B. Installed Resources**

An overview of APS's total installed portfolio as of the end of 2013 is provided in Table 1b. The table includes projects installed to-date from prior calendar years, accounting adjustments for RES eligibility standards, including the subtraction of Green Choice sales, the expected annual production from installed DE systems, a multiplier applied to in-state solar installations completed by end of year 2005, and the inclusion of wholesale DE purchases.<sup>3</sup>

<sup>2</sup> Decision No. 71448 (December 30, 2009).

<sup>&</sup>lt;sup>3</sup> Resources eligible to be counted as Wholesale Distributed Generation, as defined by A.A.C. R14-2-1802, include renewable resources owned by a third party and interconnected at 69kV or lower.

Table 1b

Resource	Technology	Ownership	MW8c1	MWdc <sup>1</sup>	(Actual)* +	+ (Annualized) <sup>2</sup>	+ Credits =	Equivalent	
	The same of the sa								
GENERATION:			8		261,916			261,916	
Aragonne Mesa	PulM	and Party PPA	3 5		263,141			263,141	
High Lonesome	DUIM	and barty DDA	8		210,562			210,562	
Perrin Ranch	NA HIGH	3rd Darty DDA	4.	,	53,593			53,593	
Snowflake White Mountain Power	Sentos	and party DDA			18,161			18,161	
Sexton (Gendale Landfill)	Landrill Gas	See Percy 110	, en		24,686			24,686	
Northwest Regional Landfill Gas	Landrill Gas	and banks DDA	01		54,868			54,868	
Salton Sea/CE Turbo	Georgeman	3rd Party PPA	4.5		10,237			10,237	
Ajo	Solar PV	3rd Party PPA	15		7,718			7,718	
Tonopan	Volum DV	3rd Party PPA	15	_	95			95	
Maricopa County	Solar BV	3rd Party PPA	10	-	26,709			26,709	
Prescott	Sold PV	3rd Party PPA	15		39,288			39,288	
Saddle Mountain	Solar PV	Sign Sign	19		49,479			49,479	
AZ Sun: Chino Vailey	Solar PV	200	17		43,658			43,658	
AZ Sun: Cotton Center	Solar PV	200	S. S.		61,094			61,094	
AZ Sun; Foothills I/II	Solar PV	AFS	95		41,701			41,701	
AZ Sun: Hyder I	Solar PV	APS	77		5,299			5,299	
AZ Sun: Hyder II	Solar PV	APS	7.		41,614			41,614	
AZ Sun: Paloma	Solar PV	A A A	`		7,607		3,804	11,411	
Small Solar Projects	Solar PV	ACC	750		141,691			141,691	
Solana CSP	Solar CSP	Std Party FrA	250		1.363,117		3,804	1,366,921	
Gross Total			257						
Adjustments					(116,259)			(116,259)	
Green Choice Sales	ales				(33,753)			(33,753)	
Wholesale DE Allocation	tion		750		1,213,106		3,804	1,216,910	3
Subtotal Generation			3						
DISTRIBUTED ENERGY (DE): 3									
Residential:						100		327 405	
UFI Installations 4	Various	Customer-Sided DE	126	148	ì	611,403		756	
Flagstaff Community Power Project	Solar PV	APS	0.4	s.0	96/				
			127	149	756	277,405		278,161	
Gross Total Subtotal Residential			127	149	756	277,405		278,161	0
Non-Residential:	Sichel	Customer-Sided DE	14	16		33,619		33,619	
UFI Installations	Spore	Customer-Sided DE	104	123	131,946	84,501		216,447	
PBI Installations	Various	Customer-Sided DE	38	45	69,955	5,884		75,839	
DE REP	Va veloci	Customer-Sided DE	22	92	11,924	31,556		43,480	
Schools & Government (Sra-Parcy Owners)	Solar DV	APS	13	15	13,257			13,257	
Elacetaff Community Power Protect	Solar PV	APS	6,0	1.1	1,820			1,820	
								294 465	ı
Gross Total			192	226	228,902	155,560		384,402	
Wholesale DE	Die C		n/a	n/a	33,753			557,55	
Subtotal Non-Residential			192	226	262,654	155,560		418,414	
Comments Productional Control of			319	375	263,410	432,965		696,375	3
Annual President President		The second secon	THE RESERVE AND ADDRESS OF THE PERSON OF THE	THE PERSON NAMED AND POST OF THE PERSON NAMED IN COLUMN 2 IS NOT T	And the world property and the state of the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOO C	1 012 285	£
Total RES Resources ( A + D )		A MARINE ACTION OF MALE MANAGEMENT AND	and the second s		1,470,510	424,905	1000	ALL AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAME	
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### 1. Renewable Generation Resources

The Company's portfolio of Renewable Generation (RG)<sup>4</sup> energy encompasses utility-scale renewable resources. Third-party owned Power Purchase Agreements (PPAs) totaling 280 MWac reached commercial operation in 2013. These generation facilities include the Tonopah solar facility (15 MWac); Maricopa County solar facility (15 MWac); and the Solana solar facility (250 MWac).

The AZ Sun Program had two additional solar PV facilities reach commercial operation in 2013. These facilities were the Hyder II solar plant (14 MWac) and the Foothills I/II solar plant (35 MWac).

In total, APS added 329 MWac of RG resources to its operating portfolio in 2013.

### 2. Distributed Energy Resources

In 2013, 106 MWdc of new RES-eligible, DE systems were installed (approximately 49 MWdc of residential and 57 MWdc of non-residential). A total of 7,985 RES-eligible, residential installations (6,902 PV Grid-Tied, 952 Solar Water Heating, 105 Solar Space Heating, and 26 other technologies) were completed in 2013. Among non-residential customers, 48 systems were installed using the UFI program in 2013 along with 132 non-residential PV Grid-Tied PBI installations. At the end of 2013, approximately 377 MWdc of cumulative incented DE capacity had been installed through the life of the program.

In addition, DE systems were installed in 2013 that did not receive an incentive through either the UFI or PBI programs. In 2013, 4.2 MWdc of interconnection-only DE systems were installed, which were comprised of 387 residential DE systems with a cumulative capacity of 2.7 MWdc and 27 non-residential systems with a cumulative capcity of 1.5 MWdc. To futher illustrate the growth of interconnection-only DE systems, APS received over 2,700 applications for interconnection-only DE systems in 2013. The energy production from these DE systems can not currently be counted towards RES compliance.

### II. 2013 RES Workplan

Each year, APS develops a total renewable energy program budget based on estimated expenses for renewable generation and distributed energy programs and projects. Revenues to offset these expenses are collected through both the RES Adjustor and base rates. Revenue collected in a prior year that has been accrued and designated to offset expenses in the current year is also available. As shown in the top section of Table 2a, total available funding in 2013 was approximately \$134 million.

The Renewable Energy Standard Adjustment Schedule (REAC-1) collects funds for the RES programs based on a per kWh charge for most customers. In 2013, the

<sup>&</sup>lt;sup>4</sup> APS defines Renewable Generation as renewable resources interconnected on the utility side of the meter. Renewable Generation resources are generally utility-scale projects and apply to the RES total production requirement.

charge that customers contribute is capped for each monthly bill at \$4.27 for residential, \$158.42 for small and medium sized non-residential customers, and \$1,000.00 for large non-residential customers with demands of 3 MW or greater, with an increase of \$200 to large non-residential customers every two months.

In Decision No. 74237, the Commission approved the application of \$21 million in prior year accrued revenue to be applied to offset 2014 budget expenses, which includes \$14 million in previous year rollover funds and \$7 million collected but unallocated funds due to the delayed in-service date for the Solana Genenerating Station.

Table 2a:
2013 RES Associated Revenues and Costs

Collected (Revenues)	_	
System Benefit Charge (SBC) Revenue <sup>1</sup>	\$	6,000,000
Renewable Energy Adjustment Charge Revenue & Other <sup>2</sup>		89,419,653
Subtotal: 2013 Collections		95,419,653
2012 Committed Accrual <sup>3</sup>		15,257,607
Prior Collected and Unallocated Funds		22,849,220
Subtotal: Prior Year Funds		38,106,827
Total: Available Revenue	\$	133,526,479
Expenses (Costs)		
Energy/Incentives		
Renewable Generation Purchased Power <sup>4</sup>	\$	19,414,018
Paid Distributed Energy Incentives <sup>5</sup>		40,792,319
Committed Distributed Energy Incentives <sup>6</sup>		6,412,455
Subtotal: Energy and Incentives	<b>\$</b>	66,618,792
Non-Energy Costs Administration & Implementation Information Services Research, Commercialization & Integration Customer Outreach and Awareness Programs Subtotal: Non-Energy Costs	<del></del>	9,617,112 720,754 420,090 14,222 10,772,178
APS Owned Program Costs Flagstaff CPP Revenue Requirement AZ Sun Revenue Requirement (net of PTC) Schools and Government Revenue Requirement Subtotal: APS Owned Program Costs	\$	267,444 13,105,016 4,422,245 17,794,706
Total: Expenses	\$	95,185,676
Net Balance	\$	38,340,803
2014 RES Program Offset <sup>7</sup>	\$	(21,000,000)
2015 RES Program Offset <sup>7</sup>	\$	(14,000,000)
Unallocated Balance	<del>\$</del>	3,340,803

### Notes to Table 2a:

NOTE: Columns, rows, and calculations may not total due to rounding.

<sup>&</sup>lt;sup>1</sup> Collected from base rates.

<sup>&</sup>lt;sup>2</sup>Collected as the REAC-1 and other miscellaneous 2013 program related receipts.

<sup>&</sup>lt;sup>3</sup>Balance of Up-front Incentives reservations issued but not yet paid as of year-end 2012.

<sup>&</sup>lt;sup>4</sup>Includes \$20.4M in costs less \$(1M) Green Choice revenue collections.

 $<sup>^{5}</sup>$ Incentives paid in 2013 (including installations before current program year but processed for payment in 2013).

 $<sup>^6\</sup>mbox{Balance}$  of Up-front Incentives reservations issued but not yet paid as of year-end.

 $<sup>^7</sup>$ Unallocated funds designated to offset 2014 and 2015 budget. (per Decision No. 74237, dated January 7, 2014)

### A. Resource Costs

Pursuant to A.A.C. R-14-2-1812(b)(5), APS is required to report on any above-market, utility-scale power purchase expenditures as well as cash incentive payments by technology. Actual costs are competitively confidential and have been redacted, but will be provided to Commission Staff pursuant to a Protective Agreement in this matter. Table 2b reflects actual 2013 expenses for projects reaching commercial operation in multiple prior years and is not reflective of current market pricing.<sup>5</sup>

Table 2b - RES Resource Costs 1

2013 RES-Attributable Energy Costs (Above Market - Utility Scale) COMPETITIVELY CONFIDENTIAL<sup>2</sup> **RES** Cost **RES** Cost Technology MW MWh (\$/MWh)2 Total RES Cost<sup>2</sup> (\$/MW)<sup>2</sup> Wind 735,619 Biomass 3 53,593 14 Landfill Gas 6 42,847 Geothermal 10 54,868 Solar PV PPA 4 84,047 59 141,691 Solar CSP 250 Solar (APS-Owned) 5 254,256

Notes to Table 2b:

2013 RES-Attributable Energy Costs (Above Market - Utility Scale)

NOTE: Columns, rows, and calculations may not total due to rounding.

18,212,333

<sup>&</sup>lt;sup>1</sup>Includes only 2013 program year costs incurred under new and legacy projects within the RES budget and is not comparable to a true levelized cost of energy.

<sup>&</sup>lt;sup>2</sup> Redacted due to the competitively confidential nature of the information

<sup>&</sup>lt;sup>3</sup>Includes gross generation, and does not adjust for Wholesale DE allocations.

<sup>&</sup>lt;sup>4</sup>Does not include Purchase Power Agreements from Distributed Energy sources.
<sup>5</sup>Includes RES multiplier for in-state solar installations prior to December 31, 2005. APS costs are at-market and therefore not included.

<sup>&</sup>lt;sup>5</sup> Invoice costs do not include associated system integration costs for these resources.

**Table 2c - RES Cash Incentive Costs** 

2013 Distributed Energy Cash Incentive Program Costs

			Up-Front Inc	entiv	es						
	MW	MWh	(\$/MW)	(\$	/MWh)¹					2013	Total Incentives Paid (\$)
Residential: <u>Up Front Incentives <sup>2,3</sup></u>			 								
Solar Electric	49	80,298	\$ 180,189	\$	109					\$	8,768,97
Solar Space Heating	N/A	227		\$	594					\$	134,73
Solar Water Heating	N/A	2,683		\$	466					\$	1,250,68
Geothermal	N/A	726		\$	1,238					\$	899,570
Subtotal: Residential	49	83,934								\$	11,053,96
			Up-Front Inc	entiv	es	Pi	oduction-Ba	sed Ince	ntives		
	MW	MWh	(\$/MW)	(\$	/MWh)		(\$/MW)	(\$/	MWh)	2013	Total Incentives Paid (\$)
Non-Residential:	_										
Up Front Incentives 2,3											
Solar Electric	1	1,576	\$ 555,885	\$	371					\$	583,866
Solar Water Heating	N/A	7		\$	9,006					\$	65,458
Solar Pool Heating	N/A	771		\$	76					\$	58,949
Production Based Incentives 4											
Solar Electric 5	193	274,970				\$	149,711	\$	105	\$	28,934,21
Combined Heat & Power	0.3	3,929				\$	7,139	\$	1	\$	2,084
Solar Water Heating	N/A	6,953						\$	6	\$	40,036
Solar HVAC	N/A	7,398						\$	7	\$	53,747
Subtotal: Non-Residential	195	295,604								\$	29,738,352
E Incentive Costs			 							\$	40,792,319

Notes to Table 2c:

NOTE: Columns, rows, and calculations may not total due to rounding.

### **B.** Residential and Non-Residential Incentive Program

DE growth continues within the APS service territory as evidenced by the high level of installed resources in 2013. High participation residential DE system volume in 2013 led to an end of the solar PV grid-tied residential UFI program in September 2013. Prior to the end of the 2013 incentive program, the solar PV grid-tied incentive level was \$0.10/watt.

<sup>&</sup>lt;sup>1</sup>Reflects 2013 incentive payments divided by associated MWh. Does not reflect full levelized cost of energy.

<sup>&</sup>lt;sup>2</sup>Includes capacity and energy installed in calendar year 2013 (annual system production).

<sup>&</sup>lt;sup>3</sup>Includes payments made in calendar year 2013 only.

<sup>\*</sup>Includes annualized energy produced for installations through 2013, as well as incentive payments made in 2013. Total lifetime PBI authorization as of year end 2013 is \$771.8M.

SAssumes a metered average kWh per installed kW for non-residential systems, by nonresidential segment.

Figure A

Residential PV Grid Tied Incentive History

Residential 1 V Grid Hed Hiteritive History								
		Up-Front Incentive						
Start Date	End Date	Level						
Prior to April 2010	4/2/2010	\$3.00/watt						
4/3/2010	4/12/2010	\$2.15/watt						
4/13/2010	9/20/2010	\$1.95/watt						
9/21/2010	1/16/2011	\$1.75/watt						
1/17/2011	3/25/2011	\$1.60/watt						
3/26/2011	6/10/2011	\$1.45/watt						
6/10/2011	11/15/2011	\$1.00/watt						
11/16/2011	1/19/2012	\$0.75/watt						
1/20/2012	3/21/2012	\$0.60/watt						
3/22/2012	6/12/2012	\$0.55/watt						
6/13/2012	7/23/2012	\$0.50/watt						
7/24/2012	11/14/2012	\$0.20/watt						
11/15/2012	9/24/2013	\$0.10/watt						
9/25/2013		None						

### C. Green Choice Rate Program

In 2013, APS continued its three existing Green Choice<sup>6</sup> rate offerings which were approved by the Commission in Decision No. 71276 in September 2009. Participating customers pay a premium on their bills based on actual energy produced at Renewable Generation facilities that are part of the APS Green Choice portfolio. GPS-1 provides a fixed level of renewable-generated power that the customer subscribes to each month in 100 kWh blocks. GPS-2 varies month to month by customer and is based on a percentage of a customer's monthly usage. Finally, GPS-3 is a single block of renewable-generated power a customer would typically purchase so that they can market a special event as using green energy.

The revenue associated with the Green Choice rates ultimately supports the development of additional renewable resources. Green Choice sales are subtracted from total Renewable Generation, and do not count toward compliance with RES targets. All Green Choice renewable energy sold under APS's GPS-1, GPS-2, and GPS-3 rate plans are certified through Green-e, a national certification and verification program for renewable energy. In 2013, 2,488 customers subscribed to these rates for 116,259 MWh of sales and a total of \$995,499 in revenue.

<sup>&</sup>lt;sup>6</sup> Green Choice sales are subtracted from total Renewable Generation, and do not count toward compliance with RES targets.

### III. Additional Reporting

- Decision No. 72022 required APS to disclose whether its affiliates, employees, or directors have any financial or other interest in a renewable energy project.
   Affiliates, employees, or directors have no financial or other interest in any third-party owned renewable energy project within APS's portfolio.
- Decision No. 72022 required APS to list cases within the previous three calendar years where APS has received damages or other considerations as a result of non-compliance related to RES contracts. No additional damages or other considerations were realized in 2013 as a result of non-compliance related to RES contracts. Please see APS's 2012 RES Compliance Report for any damages received in 2011 and 2012.
- Decision No. 71958 required APS to file in its annual REST reports, in the confidential materials provided to Staff, specific data associated with APS's Bagdad Solar Agreement. APS has provided this information to Commission Staff pursuant to a Protective Agreement executed in the matter.
- Decision No. 71646 required APS to provide Community Power Project -Flagstaff Pilot progress reports with its annual compliance report. APS completed the final installations associated with the Community Power Project in 2012. Updates on production and associated costs in 2013 for the Flagstaff Community Power Project can be found in Tables 1B and 2A.

### **Appendix**

### Appendix A: Schools Funded from 2009 UFI Funds - Total Production

In Decision No. 71275, APS was required to install a production meter at every school project that received an up-front incentive (UFI) pursuant to the Decision. Further, APS was required to monitor and report the actual metered production of school projects that received an up-front incentive these systems. Appendix A lists the in-service dates and 2013 actual energy production for all schools which received UFIs in 2009 as a result of this Decision. All schools installed photovoltaic (PV) systems.

Schools Funded From 2009 UFI Pro	ogram
In-service Date	Energy Produced in 2013 (kWh)
11/16/2010	387,778
8/26/2010	1,598,348
2/18/2011	385,072
9/27/2010	1,283,416
7/12/2010	834,677
10/22/2010	538,422
11/1/2010	220,051
11/3/2010	1,732,403
7/2/2010	229,705
8/31/2010	798,840
11/11/2010	486,974
Total kWh Production in 2013	8,495,687

For calendar year 2013, the Arizona Corporation Commission (Commission) established an annual RES requirement of 4 percent of the utility's 2013 retail kilowatt-hour (kWh) sales, a total of 1,125,085 MWh. Additionally, 30 percent of the total requirement (337,526 MWh) is to be fulfilled with energy produced from Distributed Energy (DE) resources. This separate DE carve-out provision requires half of the total DE requirement (168,763 MWh) to come from residential resources and half from non-residential resources. For the purposes of RES compliance tracking, a Renewable Energy Credit (REC) is defined as a kWh derived from eligible renewable resources or kWh equivalent of conventional resources displaced by distributed resources; however, throughout the Compliance Report APS discloses its production in MWh.

Additionally, the Company's 2009 Rate Case Settlement Agreement (2009 Settlement)<sup>2</sup> adopted provisions that exceed the requirements of the RES. The 2009 Settlement required APS to, among other provisions, acquire energy resources with annual generation or savings of 1,700,000 MWh to be in service by December 31, 2015. It further states that the new resources are to be in addition to existing resources or commitments as of the end of 2008.

In 2013, the Company's total RES resources were 1,913,285 MWh, which is **6.8 percent** of APS's total 2013 retail sales. Total DE energy production for the year reached 696,375 MWh. Total Residential performance was **165 percent** of the requirement for 2013 and Non-Residential performance was **248 percent** of the requirement.

In total, APS added 329 MWac of Renewable Generation (RG)<sup>3</sup> resources to its operating portfolio in 2013. This new capacity includes 280 MWac of facilities under third-party owned Power Purchase Agreements (PPAs) and 49 MWac of AZ Sun Program facilities.

<sup>2</sup> Decision No. 71448 (December 30, 2009).

<sup>&</sup>lt;sup>1</sup> A.A.C. R14-2-1801(N).

<sup>&</sup>lt;sup>3</sup> APS defines Renewable Generation as renewable resources interconnected on the utility side of the meter. Renewable Generation resources are generally utility-scale projects and are applied to the RES total production requirement.

In 2013, 106 MWdc of new incented DE systems were installed (approximately 49 MWdc of residential and 57 MWdc of non-residential). At the end of 2013, approximately 377 MWdc of cumulative incented DE capacity had been installed through the life of the program.

A total of 7,985 incented residential installations (6,902 PV Grid-Tied, 952 Solar Water Heating, 105 Solar Space Heating, and 26 other technologies) were completed in 2013. Among non-residential customers, 48 systems were installed using the UFI program in 2013 along with 132 non-residential PV Grid-Tied PBI installations.

High participation residential DE system volume in 2013 led to an end of the residential solar PV grid-tied UFI program in September 2013. Prior to the end of the 2013 incentive program, the solar PV grid-tied incentive level was \$0.10/watt.

A number of DE systems were installed in 2013 that did not receive an incentive through either the UFI or PBI programs. In 2013, 4.2 MWdc of interconnection-only DE systems were installed, which were comprised of 387 residential DE systems with a cumulative capacity of 2.7 MWdc and 27 non-residential systems with a cumulative capcity of 1.5 MWdc. In total, APS received over 2,700 applications for interconnection-only DE systems in 2013, the majority of which will be installed in 2014. The energy production from these DE systems can not currently be counted towards RES compliance.

For the 2013 budget year, the Company received authorization for a total RES budget of \$103 million. After offsetting funding, the Renewable Energy Adjustment Charge was calculated to collect approximately \$86 million. Monthly caps were set at \$4.27 for residential, \$158.42 for small and medium sized non-residential customers, and \$1,000.00 for large non-residential customers with demands of 3 MW or greater, with an increase of \$200 to large non-residential customers every two months. In Decision No. 74237, the Commission approved the application of \$21 million in prior year accrued revenue to offset 2014 budget expenses, which includes \$14 million in previous year rollover funds and \$7 million collected but unallocated funds as a result of the actual in-service date for the Solana Generataing Station.

<sup>&</sup>lt;sup>4</sup> Decision No. 73636 (January 31, 2013).

### 2013 Renewable Energy Standard **Arizona Public Service Company Compliance Report**

April 1, 2014



### Regulatory Commitments

- Arizona's Renewable Energy Standard (RES)
- coming from Distributed Energy (DE) resources 4 percent of APS's 2013 retail kWh sales are resources, with 30 percent of that 4 percent required to be generated from renewable
- 2009 APS Rate Case Settlement Agreement
- Required APS to acquire an additional 1.7 GWh resources or commitments as of the end of of renewable energy in addition to existing 2008



# 2013 Performance vs RES Targets

6.8% of retail sales **◆1,913,285** MWh Total Renewable Energy

206% of target 696,375 MWh Total Distributed Energy

165% of target **→** 278,161 MWh Residential DE

◆418,214 MWh 248% of target Non-Residential DE

APS is exceeding compliance with all RES requirements



## **New Renewable Generation**

### APS added 329 MWac in 2013:

- Third-party owned Power Purchase Agreements (PPA)
- Tonopah Solar Facility (15 MWac)
- Maricopa County Solar Facility (15 MWac)
- Solana Solar Facility (250 MWac)
- APS-owned AZ Sun Program
- Hyder II Solar Plant (14 MWac)
- Foothills I/II Solar Plant (35 MWac)



### **New Distributed Energy**

- 106 MWdc of new incented DE systems were installed in 2013
- This results in 377 MWdc of cumulative installed DE capacity (through the life of the program)
- About 49 MWdc of residential and 57 MWdc of nonresidential incented DE capacity was installed
- A total of 7,985 incented residential systems were installed in 2013 6,902 of which were solar PV grid-tied
- Over 2,700 interconnection-only (non-incentivized) applications for DE systems were received in 2013



### sde 🕽

### 2013 Incentive Program

- In 2013, APS paid approximately \$11 million in residential incentives and \$30 million in nonresidential incentives.
- (UFI) commitments existed at the end of 2013 for Approximately \$6 million in Up Front Incentive project reservations not yet installed.